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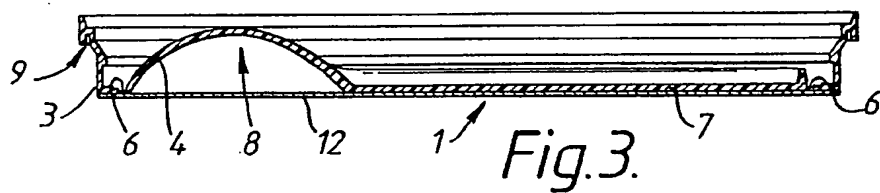
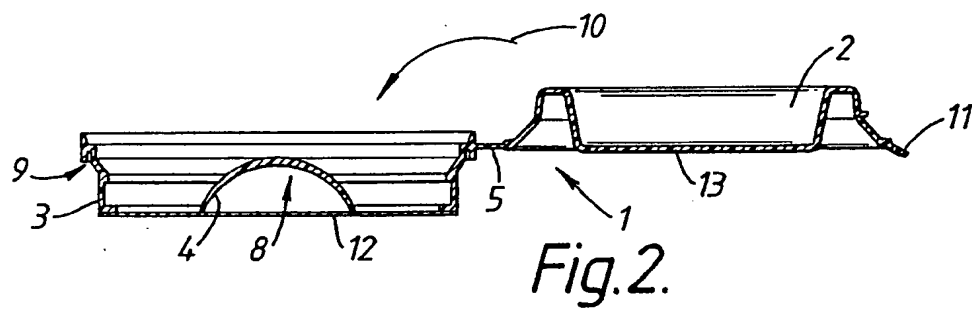
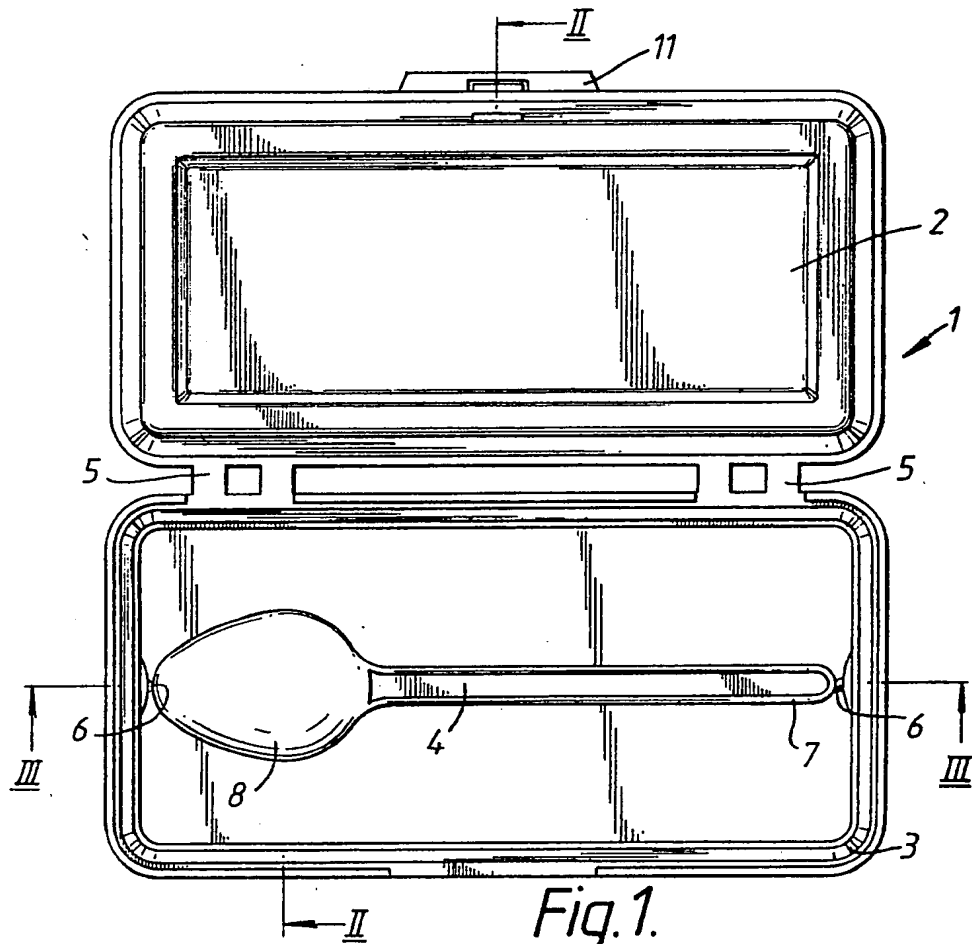
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UNITARY CLOSURE

The present invention relates to a unitary closure for a container, and particularly to a unitary closure suitable for a container holding a powdered product, and to a method of making such a unitary closure.

A number of filled containers presently available to consumers are provided with a scoop which has been separately moulded and inserted into the container.

According to one aspect of the present invention there is provided a unitary closure for an open ended container comprising a frame portion adapted to be secured to the open end of the container, a lid hingeably attached to the frame portion and adapted to close onto the frame portion, and a detachable scoop formed integrally with the frame portion.

In a preferred embodiment the lid provides a push or snap fit with the frame portion when it is closed onto the frame portion. The scoop is preferably recessed into the frame portion so as to take up no extra space in the container.

In a particularly preferred embodiment at least two lands of material are provided between the scoop and the frame portion allowing the scoop to be integrally formed with the frame portion and readily detached at a later time when the scoop is required for use.

Preferably, a sheet of material is secured to the frame to the scoop from the interior of the container. This sheet of material may serve as a tamper evident

device, and may be in the form of a foil or laminate sheet heat sealed to the frame.

According to another aspect of the present invention there is provided a method of making a unitary closure comprising a first step of integrally moulding a frame portion, a lid and a scoop attached to the frame portion, the first step including integrally moulding hinge means between the lid and the frame portion.

Preferably, the method additionally comprises a second step of heat sealing a foil layer to the frame portion.

A preferred embodiment of the invention will now be described in more detail with reference to the accompanying drawing in which:-

Figure 1 is a plan view of a unitary closure according to the invention;

Figure 2 is a sectional view of the unitary closure taken on line II-II in Figure 1; and

Figure 3 is a sectional view of the unitary closure taken on line III-III in Figure 1.

A unitary closure 1 illustrated in Figures 1 to 3 comprises a lid 2, a frame portion 3 and a scoop 4 which are all integrally moulded from plastic material. The lid 2 is attached to the frame portion 3 by means of hinges 5 which are formed from flexible or pivotable strips of the plastic material. The scoop 4 which may, for example, be a measuring scoop is moulded integrally with the frame portion by means of number of small lands of plastic material; two such lands 6 are shown in drawing. The scoop has a handle 7 and a bowl 8 and is preferably attached to the frame portion by means of a land of plastic extending between the bowl and the frame and a second land of plastic extending between the distal end of the handle and the frame.

The frame portion 3 provides a peripheral frame which fits over the open end of a container. In the embodiment shown in the drawings, the frame portion forms a push fit with a container the open end of which slides into peripheral recess 9.

The lid 2 is adapted to be closed onto the frame portion by pivoting around the hinges 5 in the direction of arrow 10 shown in Figure 2. The lid preferably forms a push or snap fit with the frame portion. In the embodiment shown in Figure 2 the lid is moulded so that it fits snugly inside the frame portion the lid having recessed portion 13 for accommodating the depth of the scoop, but it might alternatively be shaped to close outside the frame portion. The lid may be provided with a tab 11 for easy opening of the lid after closure.

After the lid, frame portion and scoop have been moulded at the same time and in the same mould, a sheet 12, such as a tamper evident foil, can be heat sealed to the lower edge of the frame as shown in Figures 2 and 3. The foil may, if desired, be heat sealed to the lower edge of the frame while the unitary closure is still in its mould.

Once the closure is detached from the mould, the lid can be closed onto the frame portion and the frame portion with its foil layer fitted over the open end of a container holding, for example, a powdered product. A consumer can then open the lid, detach the scoop, pierce or cut away the foil and obtain access to the product.

It is clearly advantageous not to be required to mould the scoop separately and insert it into the pack at some stage during the packaging operation.

Furthermore, as can be seen from Figures 2 and 3, the scoop of the present invention can be designed to fit entirely within the depth of the frame portion so that it takes up no extra space inside the container.

The embodiment of the unitary closure shown in the drawing and described above is adapted to fit over a container of substantially rectangular cross-section, with the scoop attached to each of the two shorter side of the rectangular frame portion.

Clearly, however, a unitary closure according to the invention could easily be moulded to fit a container of any other cross-sectional shape, and the scoop may be attached to other points on the periphery of the frame portion according to the required size of the scoop. For example, if a scoop with a longer handle were required it could be formed so that it has diagonally within the frame portion.

CLAIMS

1. A unitary closure for an open ended container comprising a frame portion adapted to be secured to the open end of the container, a lid hingeably attached to the frame portion and adapted to close onto the frame portion, and a detachable scoop formed integrally with the frame portion.
2. A unitary closure according to Claim 1, wherein the lid provides a push or snap fit with the frame portion when it is closed onto the frame portion.
3. A unitary closure according to Claim 1 or Claim 2, wherein the scoop is recessed into the frame portion so as to take up no extra space in the container.
4. A unitary closure according to any preceding claim, wherein at least two lands of material are provided between the scoop and the frame portion, allowing the scoop to be integrally formed with the frame portion and readily detached at a later time when the scoop is required for use.
5. A unitary closure according to any preceding claim, wherein a sheet of material is secured to the frame to isolate the scoop from the interior of the container.
6. A unitary closure according to Claim 5, wherein the sheet of material serves as a tamper evident device.
7. A unitary closure according to Claim 6, wherein the sheet of material is in the form of a foil or laminate sheet heat sealed to the frame.

8. A method of making a unitary closure comprising a first step of integrally moulding a frame portion, a lid and a scoop attached to the frame portion, the first step including integrally moulding hinge means between the lid and the frame portion.

9. The method of Claim 8, additionally comprising a second step of heat sealing a sheet of material to the frame portion.

10. A unitary closure substantially as hereinbefore described with reference to the accompanying drawings.



**Patents Act 1977**  
**Examiner's report to the Comptroller under**  
**Section 17 (The Search Report)**

Application number

9025522.5

**Relevant Technical fields**

(i) UK CI (Edition K ) B8P (PP, PL4, PL5, PAX, PK4)

(ii) Int CI (Edition 5 ) B65D

**Search Examiner**

MIKE HENDERSON

**Databases (see over)**

(i) UK Patent Office

(ii)

**Date of Search**

17 FEBRUARY 1992

Documents considered relevant following a search in respect of claims

1-10

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
X	EP A1 0072294 (LE MOULAGE AUTOMATIQUE SA) Whole specification relevant	1-4, 8
Y	US 4293079 (LYTLE) Whole specification relevant	1-9
Y	US 3955742 (MARSHALL ET AL) Whole specification relevant	1-9

Category	Identity of document and relevant passages	Relevant to claim(s)

### Categories of documents

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**Y:** Document indicating lack of inventive step if combined with one or more other documents of the same category.

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**P:** Document published on or after the declared priority date but before the filing date of the present application.

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